

THE INVENTION CLAIMED IS:

1. A method for fabricating semiconductor packages, comprising:
providing a leadframe for packages that are to be singulated with respective
predetermined package body sizes;

5 forming individual mold caps on the leadframe with mold cap dimensions that are
larger than the respective predetermined package body sizes; and
sawing the mold caps and leadframe to singulate packages therefrom and reduce the
dimensions of the mold caps to the respective predetermined package body
sizes.

10 2. The method of claim 1 wherein providing a leadframe and forming individual
mold caps thereon further comprise providing a leadframe and forming individual mold caps
thereon having spacings closer together than the spacings of leadframes and mold caps for a
corresponding punch singulation leadframe.

15 3. The method of claim 1:
further comprising forming integral sawing guides on the mold caps; and
wherein sawing the mold caps and leadframe further comprises sawing the mold caps
and leadframe with a saw blade and utilizing the integral sawing guides to
assist the saw blade.

20 4. The method of claim 3 wherein forming the integral sawing guides further
comprises forming raised ridges on the mold caps.

5. The method of claim 3 wherein forming the integral sawing guides further
comprises forming slots in the mold caps.

6. The method of claim 1 wherein forming individual mold caps on the
leadframe further comprises forming mold caps by pocket molding.

25 7. The method of claim 1 wherein sawing the mold caps and leadframe to
singulate packages therefrom further comprises sawing a tape free leadframe to singulate the
packages.

30 8. A method for fabricating semiconductor packages, comprising:
providing an array leadframe for packages that are to be singulated with respective
predetermined package body sizes;

forming individual mold caps on the array leadframe by pocket molding the mold caps with mold cap lateral dimensions that are larger than the respective predetermined package body sizes; and

5 sawing the mold caps and array leadframe to singulate packages therefrom and reduce the lateral dimensions of the mold caps to the respective predetermined package body sizes.

10 9. The method of claim 8 wherein providing an array leadframe and forming individual mold caps on the array leadframe further comprise providing an array leadframe and forming individual mold caps thereon having spacings closer together than the spacings of leadframes and mold caps for a corresponding punch singulation leadframe array.

15 10. The method of claim 8:

further comprising forming integral sawing guides on the mold caps; and
wherein sawing the mold caps and array leadframe further comprises sawing the mold caps and array leadframe with a saw blade and utilizing the integral sawing guides to assist the saw blade.

11. The method of claim 10 wherein forming the integral sawing guides further comprises forming raised ridges on the mold caps.

12. The method of claim 10 wherein forming the integral sawing guides further comprises forming slots in the mold caps.

20 13. The method of claim 8 wherein sawing the mold caps and array leadframe to singulate packages therefrom further comprises sawing a tape free leadframe to singulate the packages.

25 14. A leadframe assembly for fabricating semiconductor packages, comprising:
a leadframe for packages that are to be singulated with respective predetermined package body sizes; and
individual mold caps on the leadframe with mold cap dimensions that are larger than the respective predetermined package body sizes.

15. The leadframe assembly of claim 14 wherein the leadframe and individual mold caps thereon have spacings closer together than the spacings of leadframes and mold caps for a corresponding punch singulation leadframe assembly.

16. The leadframe assembly of claim 14 further comprising integral sawing guides on the mold caps to assist a saw blade in sawing the mold caps.

17. The leadframe assembly of claim 16 wherein the integral sawing guides further comprise raised ridges on the mold caps.

5 18. The leadframe assembly of claim 16 wherein the integral sawing guides further comprise means forming slots in the mold caps.

19. The leadframe assembly of claim 14 wherein the individual mold caps on the leadframe are pocket molded mold caps.

10 20. The leadframe assembly of claim 14 wherein the leadframe is a tape free leadframe.

21. A leadframe assembly for fabricating semiconductor packages, comprising: an array leadframe for packages that are to be singulated with respective predetermined package body sizes; and

15 individual pocket molded mold caps on the array leadframe with mold cap lateral dimensions that are larger than the respective predetermined package body sizes.

22. The leadframe assembly of claim 21 wherein the array leadframe and individual mold caps thereon have spacings closer together than the spacings of leadframes and mold caps for a corresponding punch singulation leadframe assembly.

20 23. The leadframe assembly of claim 21 further comprising integral sawing guides on the mold caps to assist a saw blade in sawing the mold caps.

24. The leadframe assembly of claim 23 wherein the integral sawing guides further comprise raised ridges on the mold caps.

25 25. The leadframe assembly of claim 23 wherein the integral sawing guides further comprise means forming slots in the mold caps.

26. The leadframe assembly of claim 21 wherein the array leadframe is a tape free leadframe.